ANNUAL IN DEX

This index is a compilation of articles and departments published in *AI EXPERT* in 1990. It is separated into subjects and departments. Subjects are listed alphabetically; departments are listed chronologically.

SUBJECTS ADVANCED AI

"Cognitive Tools and Computer-Aided Writing," P.A. Carlson, Oct. 1990, pp. 48-55.

"Integrating Neural Nets and Expert Systems," D.V. Hillman, June 1990, pp. 54-59.

"State of the AI Art," H.P. New-quist III, Dec. 1990, pp. 28-32.

"Turing, Searle, and Thought," N. Bourbaki, July 1990, pp. 52-59.

CASE STUDIES

"AI and the Military: Time for a Standard," D. Rock, J. Azarewicz, R. Klobuchar, and J. Oshin, Aug. 1990, pp. 56-64.

pp. 56-64. "AI in the Big Six," J. Keyes, May 1990, pp. 36-42.

"Custom Shells and Automated Factories," M.A. Newman, Sept. 1990, pp. 26-31.

"Fuzzy Systems in the Real World," T.J. Schwartz, Aug. 1990, pp. 28-36.

"Knowledge Acquisition in a Medical Domain," W.H. Mouradian, July 1990, pp. 34-38.

"Reg-In-A-Box: A Hypertext Solution," W.H. Foskett, Feb. 1990, pp. 38-45.

"Where's the 'Expert' in Expert Systems?" J. Keyes, March 1990, pp. 61-64.

EXPERT SYSTEMS

"A Tool for Detecting Expert-System Errors," Y. Kang and A.T. Bahill, Feb. 1990, pp. 46-51.

Feb. 1990, pp. 46-51.

"AUBREY: A Custom Expert-System Environment in LISP," D.V. Hillman, Jan. 1990, pp. 34-39.

"Building Expert Systems from the Ground Up," P.B. Osborn and W.H. Zickefoose, May 1990, pp. 28-35.

Zickefoose, May 1990, pp. 28-35. "CASE for Expert Systems," M.J. Blackman, Feb. 1990, pp. 27-31.

"Diagnostic Systems for Manufacturing," R. Rowen, April 1990, pp. 28-37.

"Domain-Specific Shells for Experts in PROLOG," R. Knaus and H.

Blecker, Jan. 1990, pp. 40-47.

"Expert Systems in Process Observation and Control," P.G. Raeth, Sept. 1990, pp. 54-59.

"Inference Engines for the Mainstream," D.E. Brown, Feb. 1990, pp.

"Object Processing for Knowledge-Based Systems," B. Kowalski and L. Stipp, Oct. 1990, pp. 34-41.

"Process States as Decision Criteria," P.G. Raeth, Dec. 1990, pp. 40-45.

"Transporting Knowledge Bases: A Standard," R. Knaus and C. Jay, Nov. 1990, pp. 34-39.

"User Interfaces for Inference-Based Programs," L.R. Harris, Oct. 1990, pp. 42-46.

"Using the RETE Algorithm," P. Graham, Dec. 1990, pp. 46-51.

"What's Happening with Expert Systems?," G.C. Philip and H.K. Schultz, Nov. 1990, pp. 57-59.

GENETIC ALGORITHMS

"An Introduction to Genetic Algorithms," S. Austin, March 1990, pp. 48-53.

"Genetic Solutions to XOR Problems," S. Austin, Dec. 1990, pp. 52-

"Metamorph: A Genetic Algorithm Tool," S. Austin, Aug. 1990, pp. 48-55.

HELP DESK

"Expert Help Desks: Expert Help for the 90's," J. Keyes, Sept. 1990, pp. 48-52.

"HELDA, the Help-Desk Assistant," A.R. Kilhoffer and C.L. Wisely, Feb. 1990, pp. 57-59.

INTELLIGENT DATABASES

"Intelligent Databases," K. Parsaye, M. Chignell, S. Khoshafian, and H. Wong, March 1990, pp. 38-47.

Wong, March 1990, pp. 38-47. "Object-Oriented Knowledge Bases, Part 1," F. Manola, March 1990, pp. 26-36.

"Object-Oriented Knowledge Bases,

Part 2," F. Manola, April 1990, pp. 46-57.

"AI and Communications Network Design," E.P. Lusher, Aug. 1990, pp. 40-47.

KNOWLEDGE REPRESENTATION

"An Introduction to Model-Based Reasoning," S.L. Fulton and C.O. Pepe, Jan. 1990, pp. 48-55.

"Factories, Objects, and Blackboards," D.L. Larner, April 1990, pp. 38-45

"Managing Uncertainty with Belief Functions," R. Spillman, May 1990, pp. 44-49.

"Problem-Solving Tools that Count," L.D. Hiebert, Jan. 1990, pp. 26-33.

"Systematic Invention for Knowledge Engineering," Y. Lirov, July 1990, pp. 28-33.

NEURAL NETWORKS

"A Financial Neural-Network Application," R.A. Marose, May 1990, pp. 50-53.

"A Neural Chips Survey," T.J. Schwartz, Dec. 1990, pp. 34-39.

"Better Speed Through Integers," D. Tveter, Nov. 1990, pp. 40-46.

"Data Representation in Neural Networks," J.A. Anderson, June 1990, pp. 30-37.

"Developing a Neural Network Shell with Turbo C++," L. O'Brien, Oct. 1990, pp. 28-33.

"How to Develop Neural-Network Applications, Part 1," D.L. Bailey and D.M. Thompson, June 1990, pp. 38-47.

"How to Develop Neural-Network Applications, Part 2," D.L. Bailey and D.M. Thompson, Sept. 1990, pp. 34-41. "Inside a Neural Network," J.

Howell, Nov. 1990, pp. 28-33. "Using Neural Networks, Part 2: Fuzzy Decisions," M. Caudill, April 1990, pp. 59-64.

"Using Neural Networks, Part 3: Fuzzy Cognitive Maps," M. Caudill, June 1990, pp. 49-53.

"Using Neural Networks, Part 4:

ANNUAL IN DEX

This index is a compilation of articles and departments published in *AI EXPERT* in 1990. It is separated into subjects and departments. Subjects are listed alphabetically; departments are listed chronologically.

SUBJECTS ADVANCED AI

"Cognitive Tools and Computer-Aided Writing," P.A. Carlson, Oct. 1990, pp. 48-55.

"Integrating Neural Nets and Expert Systems," D.V. Hillman, June 1990, pp. 54-59.

"State of the AI Art," H.P. New-quist III, Dec. 1990, pp. 28-32.

"Turing, Searle, and Thought," N. Bourbaki, July 1990, pp. 52-59.

CASE STUDIES

"AI and the Military: Time for a Standard," D. Rock, J. Azarewicz, R. Klobuchar, and J. Oshin, Aug. 1990, pp. 56-64.

pp. 56-64. "AI in the Big Six," J. Keyes, May 1990, pp. 36-42.

"Custom Shells and Automated Factories," M.A. Newman, Sept. 1990, pp. 26-31.

"Fuzzy Systems in the Real World," T.J. Schwartz, Aug. 1990, pp. 28-36.

"Knowledge Acquisition in a Medical Domain," W.H. Mouradian, July 1990, pp. 34-38.

"Reg-In-A-Box: A Hypertext Solution," W.H. Foskett, Feb. 1990, pp. 38-45.

"Where's the 'Expert' in Expert Systems?" J. Keyes, March 1990, pp. 61-64.

EXPERT SYSTEMS

"A Tool for Detecting Expert-System Errors," Y. Kang and A.T. Bahill, Feb. 1990, pp. 46-51.

Feb. 1990, pp. 46-51.

"AUBREY: A Custom Expert-System Environment in LISP," D.V. Hillman, Jan. 1990, pp. 34-39.

"Building Expert Systems from the Ground Up," P.B. Osborn and W.H. Zickefoose, May 1990, pp. 28-35.

Zickefoose, May 1990, pp. 28-35. "CASE for Expert Systems," M.J. Blackman, Feb. 1990, pp. 27-31.

"Diagnostic Systems for Manufacturing," R. Rowen, April 1990, pp. 28-37.

"Domain-Specific Shells for Experts in PROLOG," R. Knaus and H.

Blecker, Jan. 1990, pp. 40-47.

"Expert Systems in Process Observation and Control," P.G. Raeth, Sept. 1990, pp. 54-59.

"Inference Engines for the Mainstream," D.E. Brown, Feb. 1990, pp.

"Object Processing for Knowledge-Based Systems," B. Kowalski and L. Stipp, Oct. 1990, pp. 34-41.

"Process States as Decision Criteria," P.G. Raeth, Dec. 1990, pp. 40-45.

"Transporting Knowledge Bases: A Standard," R. Knaus and C. Jay, Nov. 1990, pp. 34-39.

"User Interfaces for Inference-Based Programs," L.R. Harris, Oct. 1990, pp. 42-46.

"Using the RETE Algorithm," P. Graham, Dec. 1990, pp. 46-51.

"What's Happening with Expert Systems?," G.C. Philip and H.K. Schultz, Nov. 1990, pp. 57-59.

GENETIC ALGORITHMS

"An Introduction to Genetic Algorithms," S. Austin, March 1990, pp. 48-53.

"Genetic Solutions to XOR Problems," S. Austin, Dec. 1990, pp. 52-

"Metamorph: A Genetic Algorithm Tool," S. Austin, Aug. 1990, pp. 48-55.

HELP DESK

"Expert Help Desks: Expert Help for the 90's," J. Keyes, Sept. 1990, pp. 48-52.

"HELDA, the Help-Desk Assistant," A.R. Kilhoffer and C.L. Wisely, Feb. 1990, pp. 57-59.

INTELLIGENT DATABASES

"Intelligent Databases," K. Parsaye, M. Chignell, S. Khoshafian, and H. Wong, March 1990, pp. 38-47.

Wong, March 1990, pp. 38-47. "Object-Oriented Knowledge Bases, Part 1," F. Manola, March 1990, pp. 26-36.

"Object-Oriented Knowledge Bases,

Part 2," F. Manola, April 1990, pp. 46-57.

"AI and Communications Network Design," E.P. Lusher, Aug. 1990, pp. 40-47.

KNOWLEDGE REPRESENTATION

"An Introduction to Model-Based Reasoning," S.L. Fulton and C.O. Pepe, Jan. 1990, pp. 48-55.

"Factories, Objects, and Blackboards," D.L. Larner, April 1990, pp. 38-45

"Managing Uncertainty with Belief Functions," R. Spillman, May 1990, pp. 44-49.

"Problem-Solving Tools that Count," L.D. Hiebert, Jan. 1990, pp. 26-33.

"Systematic Invention for Knowledge Engineering," Y. Lirov, July 1990, pp. 28-33.

NEURAL NETWORKS

"A Financial Neural-Network Application," R.A. Marose, May 1990, pp. 50-53.

"A Neural Chips Survey," T.J. Schwartz, Dec. 1990, pp. 34-39.

"Better Speed Through Integers," D. Tveter, Nov. 1990, pp. 40-46.

"Data Representation in Neural Networks," J.A. Anderson, June 1990, pp. 30-37.

"Developing a Neural Network Shell with Turbo C++," L. O'Brien, Oct. 1990, pp. 28-33.

"How to Develop Neural-Network Applications, Part 1," D.L. Bailey and D.M. Thompson, June 1990, pp. 38-47.

"How to Develop Neural-Network Applications, Part 2," D.L. Bailey and D.M. Thompson, Sept. 1990, pp. 34-41. "Inside a Neural Network," J.

Howell, Nov. 1990, pp. 28-33. "Using Neural Networks, Part 2: Fuzzy Decisions," M. Caudill, April 1990, pp. 59-64.

"Using Neural Networks, Part 3: Fuzzy Cognitive Maps," M. Caudill, June 1990, pp. 49-53.

"Using Neural Networks, Part 4:

Making an Expert Network," M. Cau-

dill, July 1990, pp. 41-45. "Using Neural Networks, Part 5: Diagnostic Expert Nets," M. Caudill, Sept.

1990, pp. 43-47.

"Using Neural Networks, Part 6: Hybrid Expert Networks," M. Caudill, Nov. 1990, pp. 49-54.

PROJECT MANAGEMENT

"AI Infusion: Getting Your Company Involved," T. Helton, March 1990, pp. 54-59.

"Installing AI Tools into Corporate Environments," A. Tannenbaum, May 1990, pp. 54-59.

"Making Knowledge Engineering Productive," M. Kearney, July 1990,

pp. 46-51.

DEPARTMENTS AI APPRENTICE

"Putting Expert Systems in Their Place," M. Minasi, Jan. 1990, pp. 13-15. "Expert Systems for a Rainy Day," M. Minasi, Feb. 1990, pp. 13-15

"Asking the Right Questions," M. Minasi, March 1990, pp. 13-15.

"What Does an Expert System Look Like?" M. Minasi, April 1990, pp. 13-

"If the Shell Fits...," M. Minasi, May

1990, pp. 13-15. "Exhibiting Uncertainty, Part 1," M.

Minasi, June 1990, pp. 13-15. "Exhibiting Uncertainty, Part 2," M.

Minasi, July 1990, pp. 13-15. "Bayes and Simple Expert Systems,"

M. Minasi, Aug. 1990, pp. 13-15. "Working with Inference Engines," M. Minasi, Sept. 1990, pp. 15-17.

"Logical Expressions and Inference Engines," M. Minasi, Oct. 1990, pp. 15-

"Decision Tables: A Form of Expert System," M. Minasi, Nov. 1990, pp. 15-

"Prove It," M. Minasi, Dec. 1990, pp. 15-17.

AI INSIDER

"The Almost Sure Thing," L.B. Eliot, Jan. 1990, pp. 9-11.

"Lights, Camera, Action," L.B. Eliot, Feb. 1990, pp. 9-11.

"Best Bets for Future Innovations," L.B. Eliot, March 1990, pp. 9-11.

"TIRS: The Great Blue Hope," L.B.

Eliot, April 1990, pp. 9-13. "Insider Revisited," L.B. Eliot, May

1990, pp. 9-11.
"A Piece of the Action," L.B. Eliot, June 1990, pp. 9-10.

"Laughter's the Best Lesson," L.B. Eliot, July 1990, pp. 9-11.

"A Target-Rich Environment," L.B. Eliot, Aug. 1990, pp. 9-10.

"The Greatest Story Ever Told," L.B. Eliot, Sept. 1990, pp. 11-13. "The Comeback Kid," L.B. Eliot,

Oct. 1990, pp. 11-13.

"Loose LIPS Sink Ships," L.B. Eliot, Nov. 1990, pp. 11-13.

"Ditching the Mainstream," L.B. Eliot, Dec. 1990, pp. 11-12.

BOOK STORE

"Herbert, Murphy, and Pleriplaneta Computatrix," P. Chapnick, Dec. 1990, pp. 23-25.

EDITORIAL INTELLIGENCE

"A Meeting of Minds," P. Chapnick, Jan. 1990, pp. 5-6.

"Software Quality Assurance," P.

Chapnick, Feb. 1990, pp. 5-6. "Intelligent Databases," P. Chapnick, March 1990, pp. 5-6.

"The Art of Manufacturing," P. Chapnick, April 1990, pp. 5-6.

"From Abacus to Computer: Finance Drives Technology," P. Chapnick, May 1990, pp. 5-6.

"Second Back-Propogations,"

O'Brien, June 1990, pp. 5-6. "An End to Winter?" J. Kestelyn, July 1990, pp. 5-6.

"After The Show," L. O'Brien, Aug. 1990, pp. 5-6.

"Embedded Intelligence," A.L. Zei-

chick, Sept. 1990, pp. 5-6. "A Week in Boston," A.L. Zeichick,

Oct. 1990, pp. 5-6. "A Neural-Net Language," A.L. Zeichick, Nov. 1990, pp. 5-6.

"The Power of AI," A.L. Zeichick, Dec. 1990, pp. 5-6.

EXANTE AI

"Coming Attractions," C.-A. Rovira, Jan. 1990, pp. 23-24.

"A Settling of Accounts," C.-A. Rovira, Feb. 1990, pp. 23-25.

"Constructing a Vision," C.-A. Rovira, March 1990, pp. 23-25.

"Interfaces and Intelligence Manufacturing," C.-A. Rovira, April 1990, pp.

"The Lure of Circus Music," C.-A. Rovira, May 1990, pp. 17-19.

"Elucidating Neural Networks," C .-A. Rovira, June 1990, pp. 27-29.

"Acquiring Knowledge: Finding the Tool is the Trick," C.-A. Rovira, July 1990, pp. 25-27.

"The Greening of AI," C.-A. Rovira, Aug. 1990, pp. 25-26.

EXPERT'S TOOLBOX

"A Portable Inference Engine in PROLOG," R. Knaus, Jan. 1990, pp.

"More Simple Problems in LISP," N. Bourbaki, Feb. 1990, pp. 17-20.

"Building Networks that Learn using PROLOG," R. Knaus, March 1990, pp. 17-21.

"Pattern Matching and Failure Continuations in LISP," N. Bourbaki, April 1990, pp. 17-21.

"Message Passing in PROLOG," R. Knaus, May 1990, pp. 21-27.

"Pattern Matching and Compilation in LISP," N. Bourbaki, June 1990, pp.

"Programming with Frame Rules in PROLOG," R. Knaus, July 1990, pp.

"Building a Simulator in LISP," N. Bourbaki, Aug. 1990, pp. 17-23. "Object-Oriented Shells in PRO-

LOG," R. Knaus, Sept. 1990, pp. 19-25. "The Scheme of Things," N. Bourbaki, Oct. 1990, pp. 19-24.

"Class Acts in C++," G. Ents-

minger, Nov. 1990, pp. 21-25. "Try, Try Again," N. Bourbaki, Dec. 1990, pp. 19-21.

IN PRACTICE

"The AI Eighties," H.P. Newquist III, Jan. 1990, pp. 61-69.

'The End of the Beginning," H.P. Newquist III, Feb. 1990, pp. 65-67.

"Bloodhounds and Expert Systems," H.P. Newquist III, March 1990, pp. 67-

"Airports, Airlines, and Applications," H.P. Newquist III, April 1990, pp. 67-69. "Neural Networks that Work," H.P.

Newquist III, May 1990, pp. 67-69. "All Things Considered," H.P. New-

quist III, June 1990, pp. 65-67.

"The Expert Systems of Summer," H.P. Newquist III, July 1990, pp. 67-69. "A Giant Step for the Industry," H.P. Newquist III, Aug. 1990, pp. 67-68.

"No Summer Reruns," H.P. Newquist III, Sept. 1990, pp. 65-66.

"No Summer Reruns, Continued," H.P. Newquist III, Oct. 1990, pp. 65-

"Revenge of the 1980s," H.A. Newquist III, Nov. 1990, pp. 65-67.

"Andersen Knows Applications," H.P. Newquist III, Dec. 1990, pp. 63-

SOFTWARE REVIEWS

"SuperExpert from Texas Instru-J. Keyes, Feb. 1990, pp. 61-64. "Mathematica from Wolfram Research," M. Caudill, May 1990, pp. 61-

"Neurocomputing Rap: Neural Net-work Product Wrap-Up," D. Stubbs,

June 1990, pp. 61-63. "Mahogany Professional from Emerald Intelligence," M. Caudill, July 1990,

pp. 61-63. "NeuroShell from Ward Systems," D. Hillman, Sept. 1990, pp. 61-64.

"Smalltalk/V 286 by Digitalk," B. Suydam, Oct. 1990, pp. 57-59.

"Turbo C++ from Borland International," H. Brothers, Oct. 1990, pp. 61-

"Level5 Object from Information Builders," T. Helton, Nov. 1990, pp.

"Entrypaq from Albatheon," J. Angus, Dec. 1990, pp. 59-61.